TAMMET, Kh.F.

Analytical method of processing observations in studying the
distribution of atmospheric ions according to mobility. Trudy
GGO no.13:103-110 '62.   (MIRA 15:12)
   (Atmospheric electricity) (Ions—Migration and velocity)

/

TAMMET, Kh.F., SEPPER, E.V.

Theory of theelectrostatic fluxmeter. Trudy GGO no.97:97-100 '60.
(MIRA 13:8)
(Electric measurements)

L 13126-63   EWT(1)/BDS/ES(v)   AFFTC/ASD/ESD-3   Pe-4   RB

S/049/63/000/004/005/005

AUTHOR: Tammet, Kh. F., Saluvere, T.A.

TITLE: Horizontal components of an atmospheric electrical field near a uniform subjacent surface

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 4, 1963, 654-656

TEXT: The connection of horizontal components of an electrical field near an underlying surface with a vertical component and with the distribution of a bulk charge is investigated. A field with horizontal components E_x, E_y and vertical component E_z is considered. From the potentiality of the electric field, these correlations result:

$$\frac{dE_x}{dz} = \frac{dE_z}{dx} \qquad (1)$$

Card 1/2

L 13126-63   S/049/63/000/004/005/005
Horizontal components of an atmospheric...

$$\frac{dE_y}{dz} = \frac{dE_z}{dy} \tag{2}$$

These are used for an indirect evaluation of the possible values of horizontal components. An arrangement for the study of the components of an electric field near a subadjacent surface is presented. The layout of the monitors for three polymers and a block scheme of the amplifying and recording apparatus are shown. Correlations (1) and (2) permit proposal of a more ideal method of experimental study of horizontal components with the aid of three polymers arranged on the level of an uniform underlying surface. There is 1 figure and 2 non-English references.

ASSOCIATION: Tartuskiy gosudarstvennyy universitet (Tartu State University)

SUBMITTED: June 28, 1962

Card 2/2

ACCESSION NR: AT4011520   S/2531/63/000/146/0071/0074

AUTHOR: Tammet, Kh. F.

TITLE: Circuit diagrams for aspiration counters of aeroions

SOURCE: Leningrad. Glavn. geofiz. observatoriya. Trudy*, no. 146, 1963.
Atmosfernoye elektrichestvo, 71-74

TOPIC TAGS: aspiration counter, aeroion, aeroion counter, voltage instability

ABSTRACT: In a general consideration of methods for compensating for voltage in-
stability on the part of the power-supply by means of special circuit arrangements, the
author points out that a well-known method is the use of a bridge circuit as shown in
Figure 1 of the Enclosure. Depending on concrete circumstances, either the outer plate
of the test capacitor can be grounded or one input terminal of the electrometer may be
selected for this purpose. The electrometer in the circuit arrangement illustrated in
Figure 1 of the Enclosure is connected to the diagonal of the bridge which is formed by
resistances R_1, R_2 and the capacitances of test capacitor C and supplementary compen-
sating capacitor C_1. The author indicates that the bridge connection is advisable when
sensitivity gained through reduction of value ω (determined in a bridge circuit by the

Card 1/6

ACCESSION NR: AT4011520

stability of the bridge balance) exceeds the sensitivity loss caused by the connection of the shunting capacitor C_1. Another possibility for eliminating errors caused by the power-source voltage instability consists of replacing the voltage source for the duration of the test by a special capacitor charged from a high-stability, power-supply unit. The advantages and disadvantages of this technique are discussed. In the discharge method the reference capacitor should be connected between the inner plate of the test capacitor and the electrometer as shown in Figure 2 of the Enclosure. In order not to lose sensitivity, the value of the capacitance C_2 must be several times greater than that of the series-connected capacitances of the test capacitor and the electrometer. The effect of voltage instability is completely eliminated in the combined circuit arrangement, shown in Figure 3 of the Enclosure. In this combined arrangement the value of the compensating capacitor C_1 may be relatively small, with the result that counter sensitivity is better than that in the simple bridge hook-up. The balance condition of the combined circuit does not depend on the value of the test capacitor. This is, in turn, a convenient feature for counters with an interchangeable inner plate. Orig. art. has: 1 formula. and 4 figures.

ASSOCIATION: Glavn. geofiz. observatoriya, Leningrad. (Main Geophysical Observatory)

Card   2/6

ACCESSION NR: AT4011520

SUBMITTED: 00

DATE ACQ: 20Feb64

ENCL: 03

SUB CODE: EE

NO REF SOV: 003

OTHER: 002

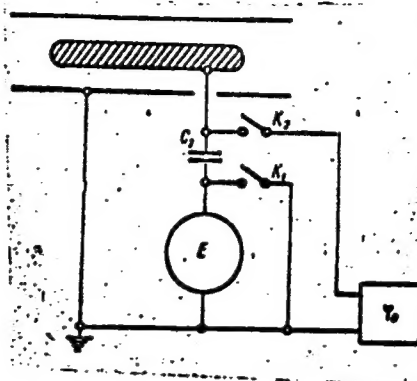3/6
Card

Fig. 2 – Counter connected in circuit with reference–voltage capacitor.

Card 5/6

ACCESSION NR: AT4011520   ENCLOSURE: 03
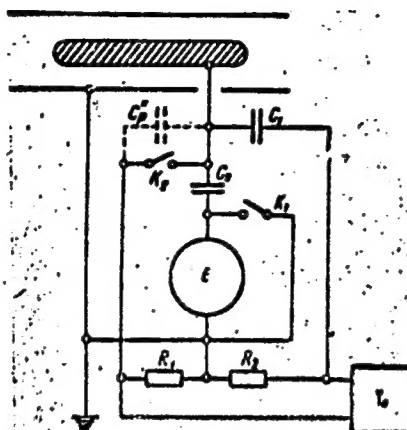

Fig. 3 – Counter connected in "combined" circuit.

Card   6/6

TAMMET, Kh.F. [Tammet, H.]

Determining the effective capacity of the cylindrical
measuring condenser of an aspiration counter for atmospheric
ions. Izv. AN SSSR. Ser. geofiz. no.3:436 Mr '64.

(MIRA 17:3)

1. Tartuskiy gosudarstvennyy universitet.

TAMMI, OLLI

Tammi, Olli. On certain combinations of the coefficients of schlicht functions. Ann. Acad. Sci. Fennicae. Ser. A. I. Math.-Phys. no. 140, 13 pp. (1952).

For functions $f(z)$ schlicht, or analytic, in the unit circle, the author obtains coefficient estimates and distortion theorems which involve the total variation of $\arg zf'(z)$ or of $\log |f'(z)|$. *P. R. Garabedian* (Stanford, Calif.).

TAMMIK, K. D.

USSR/Chemical Technology - Chemical Products and Their   I-14
            Application. Industrial Organic Synthesis

Abs Jour   : Referat Zhur - Khimiya, No 4, 1957, 13070

Author   : Freydin B.G., Tammik K.D.
Title   : Separation of Synthetic Acids by the Method of Extractive
              Crystallization by Means of Urea.

Orig Pub   : Zh. prokl. khimii, 1956, 29, No 6, 935-940

Abstract   : Investigated were 2 variants of the method of extractive
              crystallization, by means of urea (I), for the separation
              of synthetic fatty acids having straight and branched
              chains, namely: by treatment with saturated solution of
              I, in the presence or in the absence of undissolved ex-
              cess of I, or by grinding of I with fatty acids in the
              presence of a small amount of activating agent. Subjec-
              ted to separation were acids obtained by oxidation of
              the diesel fraction of liquid synthetic fuel (boiling
              range 220-330°), and also of kerosene, dearomatized by

Card 1/4   - 273 -

USSR/Chemical Technology - Chemical Products and Their   I-14
              Application. Industrial Organic Synthesis

Abs Jour   : Referat Zhur - Khimiya, No 4, 1957, 13070

          treatment with H_2SO_4. a) A solution of synthetic fatty
          acids in twice their volume of light gasoline (BP <
          100°) or C_6H_6, was treated at 20-22° with efficient
          stirring, for 30-60 minutes, with a saturated solution
          of I (in the presence of undissolved I), taken in an
          amount ≥ 120% of the theoretical; ~ 350 ml of satura-
          ted solution of I being taken per 80 g of acids of nor-
          mal structure. The complex that was formed was filtered
          off together with the excess I and washed with gasoline
          or C_6H_6. From the gasoline (benzene) layer, were isolated,
          by distillation of the solvent, the acids that did not
          react with I. The aqueous layer was stirred while heat-
          ing to 80°, with the filtered off precipitate, the acids
          that separated were removed, washed with water and dried,
          while the aqueous solution of I was cooled and used to-
          gether with the precipitate of I that separated, in the

Card 2/4   - 274 -

USSR/Chemical Technology - Chemical Products and Their   I-14
         Application. Industrial Organic Synthesis

Abs Jour   :   Referat Zhur - Khimiya, No 4, 1957, 13070

next experiments. b) $\underline{I}$, taken in an amount correspon-
ding to 120% of the theory, was ground with the mixture
of synthetic fatty acids, preferably in the presence of
3% (on the basis of $\underline{I}$) of water or CH_3OH. Further was-
hing of the complex that was formed to remove the un-
reacted acids, their isolation and decomposition of the
complex, were carried out as described above. Presented
are the results of separations of mixtures of saturated
acids, produced from peanut oil and by oxidation of syn-
thol fraction (boiling range 220-330°). Ascertained was
the posibility of utilizing extractive crystallization
by means of $\underline{I}$, for the separation of synthetic fattly
acids produced by oxidation of liquid hydrocarbon mixtu-
res, including also their solid fractions, and also for
the purification from byproducts of oxidation. By chan-
ging the conditions of extractive crystallization

Card 3/4   - 275 -

USSR/Chemical Technology - Chemical Products and Their
          Application. Industrial Organic Synthesis   I-14

Abs Jour   : Referat Zhur - Khimiya, No 4, 1957, 13070

            (change in the amount of I) it is possible to isolate
            purer acids of a normal structure.

Card 4/4

TAMMIK, K.D.

SLOBODIN, Ya.M.; AL'TMAN, S.S.; TAMMIK, K.D.

Preparation of antiwear sulfur-containing additives based on ethylene sulfide and fatty acids. Proizv.smaz.mat.   no.5:58-63 '59.   (MIRA 13:4)

1. Leningradskiy opytnyy neftemaslozavod imeni Shaumyana.
   (Lubrication and lubricants--Additives)

MUSHENKO, D.V.; LEVINA, M.I.; TAMMIK, M.E.

Hydrogenation of distillates obatined from the catalytic cracking
of Romashkino crude oil on a nickel-molybdenum catalyst. Trudy
VNIINeftekhim no.3:163-172 '60.   (MIRA 14:2)
          (Petroleum—Refining)   (Motor fuels)
                             (Hydrogenation)

S/081/61/000/011/028/040
B103/B202

AUTHORS: Mushenko, D. V., Levina, M. I., Tammik, M. E.

TITLE: Hydrogenation of the wide fraction of catalytic cracking of Romashki petroleum on catalysts with increased catalytic activity

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 11, 1961, 481, abstract 11M176 (11M176). ("Tr. Vses. n.-i. in-t neftekhim, protsessov", vyp. 3, 1960, 173-177)

TEXT: Two new catalysts have been suggested: fluorine-nickel-molybdenum catalyst with the contents (in %): 0.5 F, 4.2 Ni, 6.8 Mo and chromium-molybdenum catalyst with 3.3 Cr and 5.6 Mo. They are used for hydro-genating a catalyzate from which benzene boiling up to 200°C has been removed and which had been obtained on cracking Romashki petroleum by using a powdery catalyst by the method of AZNII NP. The products were hydrogenated at a pressure of 100 atm and a temperature of 425°C. The product resulting from a two-stage processing of the strongly sulfurous Romashki petroleum was 76.1 % of pure commercial products, among them

Card 1/2

S/081/61/000/011/028/040
B103/B202

Hydrogenation of the...

(in %): benzene up to 200°C, Diesel oil ДЯ ("DL") 35.9, alkylation and polymerization product 4.3. In addition, 3.6 % (referred to petroleum) of metallurgical fuels of low sulphur content are obtained. [Abstracter's note: Complete translation.]

Card 2/2

AUTHORS: Levina, M.I., Rysakov, M.V. and Tammik, M.E.

TITLE: Catalytic Hydrofining of Diesel Fuel Fractions

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No.7,
            pp.6-11

TEXT: Hydrofining is the best way of removing sulphur compounds
from diesel fuel fractions.   This article gives the results of an
investigation of hydrofining of diesel fuel fractions on an
aluminium-cobalt-molybdenum catalyst with various operating
conditions.   The initial characteristics of the diesel fuel used
are given in Table 1.   The hydrofining circulation system is
illustrated schematically and is described and the operating
conditions are stated.   Experimental results of hydrofining diesel
fuels under various conditions are given in Table 2.   The data show
that as the temperature is raised from 350 to 400°C, the degree of
sulphur removal increases and at 400°C and a pressure of 15 atm,
the degree of desulphurization is high.   If the feed contains a high
resin content the activity of the catalyst is reduced by the
formation of coke on the catalyst.   The catalyst can be regenerated
by oxidizing the coke.   A sample of catalyst was regenerated
Card 1/2

S/065/60/000/007/004/008/XX
E194/E484

Catalytic Hydrofining of Diesel Fuel Fractions

12 times and was still efficient afterwards.   Data on the
hydrofining of diesel fuel with a high resin content is given in
Table 3.   The results of balance tests given in Table 4 show that
at a temperature of 400°C and a pressure of 15 atm, the yield of
refined diesel fuel is 98%.   Data on the analysis of circulating
gas are given in Table 5.   The results of hydrofining diesel fuel
with technical hydrogen containing from 0.6 to 1.5% of carbon
dioxide are given in Table 6, and it will be seen that this does
not reduce the activity of the catalyst.   Characteristics of
hydrofined diesel fuel are given in Table 7;   diesel fuel of the
required properties was   obtained from a devonian crude by
hydrodesulphurizing at a temperature of 400°C and a pressure of
15 atm.   A number of different catalysts were made up containing
varying amounts of cobalt and molybdenum, the carrier used was
aluminium oxide.   The results of activity tests of the various
catalysts are given in Table 8.   It is found that catalyst
containing 3.2% cobalt and 4.8% molybdenum is vary active.   There
are 1 figure, 8 tables and 1 English reference.

ASSOCIATION: VNIINeftekhim

Card 2/2

S/065/61/000/012/001/005
E075/E135

AUTHORS: Mushenko, D.V., Levina, M.I., Tammik, M.E.,
             Mochalovskaya, A.P., Semenova, V.V., and Zimina, A.V.

TITLE: Pilot-plant deresinification of crude oils by
             contact process

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.12, 1961,
             1-7

TEXT: The contact process for deresinification of crude
oils developed by VNIINeftekhim in 1953-1955 was tested in a pilot
plant to obtain data for industrial planning. The plant consisted
of a heat-exchanger, capable of heating the oil to 430-450 °C and
70-30% vaporization, and a refractory brick-lined reactor suitable
for operation at temperatures up to 1000 °C. An improved iron-
containing contact catalyst was prepared for the experimental runs
in a catalyst factory, in the form of cylindrical pellets (5 mm^2).
The reactor was charged consecutively with a 15 cm layer of
25 x 25 mm Raschig rings, 10 cm layer of 10 x 10 mm Raschig rings,
the first 125 cm-high layer of the contact catalyst, an

Card 1/4

Pilot-plant deresinification ...   S/065/61/000/012/001/005
                                          E075/E135

intermediate 25 mm layer of Raschig rings and a second layer of
the catalyst, followed by another layer of 25 mm Raschig rings.
In all, 18 m^3 of the catalyst were used. After deresinification
the catalyst is blown with superheated steam to remove volatile
products and then air for 12-15 hours. The regeneration process
can be speeded up by increasing the amounts of steam and air
passing through the catalyst. The results of the deresinification
process and its material balance are given in Table 4.   Of the
deresinified oil 64% distilled below 350 °C, 93% below 500 °C and
97.6% below 530 °C. The experimental runs confirmed that the
deresinification is a specific process for the removal of
asphalts and resins, proceeding with a small thermal effect, and
is not a modification of cracking. The gas formation is
negligible and does not exceed 1%. After regeneration is finished
it is not necessary to carry out spacious cooling of the reactor
since the newly introduced feedstock rapidly makes its temperature
uniform. The proposed process is recommended in the first place
for high-sulphur crudes.
There are 2 figures, 5 tables and 4 Soviet-bloc references.
Card 2/ 2

MITSIO NAKAMURA; SOICHI KHOSOI; BAKLI, A.R.; PARKINSON, U.;
    ATKINS, G.B.; KIL'PINEN, Urkho; PERGYUSON, D.D.;
    MAKVEYG, Amos; TAMMINEN, Mauro; ISKARO, Rubens; ZILLER, Armando

Significance of the Fifth World Trade-Union Congress to the
workers. Vsem. prof. dvizh. no.8:7-14 Ag '61.
                                              (MIRA 14:8)

1. Chlen Ispolnitel'nogo komiteta mestnoy sektsii v Niigata,
Yaponiya (for Mitsuo Nakamura). 2. Chlen TSentral'nogo
ispolnitel'nogo komiteta profsoyuza trudyashchikhsya
gosudarstvennykh zheleznykh dorog, Yaponiya (for Soichi Khosoi).
3. General'nyy sekretar' Federatsii kotel'shchikov Avstralii
(for Bakli). 4. Predsedatel' Avstraliyskoy federatsii gornyakov
i trudyashchikhsya shifernykh predpriyatiy (for Parkinson).
5. Federal'nyy sekretar' Assotsiatsii kuznetsov Avstralii
(for Atkins). 6. Sekretar'kaznachey Avstraliyskoy assotsiatsii
parovoznykh mekhanikov i mashinistov (Novyy Yuzhnyy Uel's)
(for Pergyuson). 7. Sekretar' Avstraliyskoy federatsii
rabotnikov promyshlennosti po proizvodstvu alkogol'nykh
napitkov i rodstvennykh predpriyatiy (sektsiya Novogo Yuzhnogo
Uel'sa) (for Makveyg). 8. Sekretar' profsoyuza kamenshchikov
Finlyandii (for Kil'pinen). 9. Sekretar' profsoyuza vodolazov
Finlyandii (for Tamminen). 10. Chlen Ispolnitel'nogo komiteta
Vsemirnoy federatsii profsoyuzov (for Iskaro). 11. Vitse-
predsedatel' Natsional'noy konfederatsii bankovskikh sluzhashchikh
Brazilii, predsedatel' Federatsii bankovskikh sluzhashchikh shtata
Minas Zherias (for Ziller). (World Federation of Trade Unions--Congresses)

TAMOCHKIN, A.N., uchitel' sredney shkoly (st. Adsakovo Ufimskoy zh.d.).

Experience in regional studies. Geog. v shkole no.3:53-55 My-Je '53.
(MLRA 6:6)
(Geography--Study and teaching)

TAMODLIN, Yu.V., inzh.

Use of electric transformers with split 6 kv. windings. Prom.
energ. 18 no.2:31 F '63.   (MIRA 16:2)
       (Electric transformers)   (Electric substations)

L 13881-66   EWT(1)/ETC(m)-6/T/EWP(f)   IJP(c) · AT/WW
ACC NR: AP6004536
SOURCE CODE: UR/0236/65/000/004/0153/0164

AUTHOR: Makaryavichyus, V. I. — Makarevicius, V.; Tamonis, M. M. 84

ORG: Institute of Power and Electrical Engineering, Academy of
Sciences, Lithuanian SSR (Institut energetiki i elektrotekhniki Akademii nauk
Litovskoy SSR)

TITLE: The effect of chemical reactions on the diffusional-convective
energy transfer**

SOURCE: AN LitSSR. Trudy. Seriya B. Fiziko-matematicheskiye,
khimicheskiye, geologicheskiye i tekhnicheskiye nauki, no. 4, 1965,
153-164

TOPIC TAGS: heat transfer, mass transfer, ablation, heterogeneous
combustion, combustion

ABSTRACT: The effect of a chemical reaction on the diffusional-
convective energy transfer was studied by solving the diffusion
equation for a heterogeneous reaction taking place in the laminar
boundary layer of an isothermal, catalytic surface. A cubic concen-
tration profile was assumed in the boundary layer and an integral
method was used for the solution. Solutions were plotted in the form
of curves of

$$D = Kc_w^2/R_w$$

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L 13881-66

ACC NR: AP6004536

3

where $Kc'_w = D \cdot \left| \frac{\partial c}{\partial y} \right|_{y=0}$,

vs.. the reaction order γ and the Euler number. The latter accounts for the hydrodynamic conditions in energy transfer. The dimensionless parameter D represents the ratio of the limiting reaction rate in a kinetic regime to that in a diffusion controlled regime. R_w is the reaction rate at the wall. The solutions were obtained for a wedge-shaped surface at Euler numbers equal to 0.0904, 0, 1, and 4. D and r were found to be the controlling factors for the process. When the chemical reaction rate depends on the concentration of several components, then the mass transfer rate depends on the initial concentrations and the diffusion coefficients of the reacting components. The resultant heat flow in complex diffusional-convective energy transfer can be generalized by the usual criterial equations when the potential of chemical energy transfer is used to calculate the heat transfer coefficient.

[PV]

SUB CODE: 21/ SUBM DATE: 06Jul65/ ORIG REF: 006/ OTH REF: 001
ATD PRESS: 4/93

combustion 29, 44, 55

Card 2/2

TAMONIS, M.M.

Laminar boundary layer on a wedge-shaped surface following
an exponential law of velocity distribution on the outer
boundary of the layer. Part 1. Temperature boundary layer.
Trudy AN Lit. SSR. Ser. B no.3:169-177 '65.   (MIRA 19:1)

1. Institut energetiki i elektrotekhniki AN Litovskoy SSR.
Submitted February 8, 1965.

MAKARYAVICHYUS, V.I. [Makarevicius, V.]; TAMONIS, M.M.

Effect of chemical reactions on diffusion-convective energy transfer. Trudy AN Lit. SSR. Ser. B. no. 4:153-164 '65
(MIRA 19:2)

1. Institut energetiki i elektrotekhniki AN Litovskoy SSR. Submitted July 6, 1965.

L 24597-66   EWT(1)/EWP(m)/EWA(1)   WW

ACC NR: AP6009567   SOURCE CODE: UR/0236/65/000/003/0169/0177

AUTHOR: Tamonis, M. M. (Tamonis, M.)   61
                                                                              B
ORG: Institute of Power and Electrical Engineering, Academy of Sciences, Lithuanian
SSR (Institut energetiki i elektrotekhniki Akademii nauk Litovskoy SSR)

TITLE: Laminar boundary layer on a wedge-shaped surface when the velocities on the
outside boundary of the layer are distributed according to a power law. 1. Thermal
boundary layer

SOURCE: AN LitSSR. Trudy. Seriya B. Fiziko-matematicheskiye, khimicheskiye, geolo-
gicheskiye i tekhnicheskiye nauki, no. 3, 1965, 169-177

TOPIC TAGS: laminar boundary layer, boundary layer, heat transfer, adiabatic process

ABSTRACT: Equations for a laminar boundary layer on a wedge-shaped surface are theo-
retically analyzed for the case where the velocity distribution on the outer boundary
of the layer conforms to a power law. The energy equation is solved by the integral
method using cubic profiles for the velocities and temperatures in the boundary layer.
It is found that this method gives results which coincide satisfactorily with exact
solutions of the differential energy equation. It is shown that this equation may be
linearized by using piecewise linear approximation in isolated intervals for the ra-
tios between the thicknesses of the thermal and dynamic boundary layers ζ_T. Energy

Card 1/2

L 24597-66

ACC NR: AP6009567

equations are solved in a wide range of values for ζ_T as a function of the exponent in the law for velocity distribution on the outer boundary of the layer m. The coefficients in the expression for heat exchange between wedges with an adiabatic initial section depend both on the exponent in this distribution law and on the value of ζ_T. Formulas are given which approximate these coefficients with an accuracy of ±3% and graphs of the numerical solutions are also given. Analytical formulas are derived for heat exchange between wedges both with and without an initial adiabatic section. Orig. art. has: 4 figures, 2 tables, 38 formulas.

SUB CODE: 20/   SUBM DATE: 08Feb65/   ORIG REF: 001/—   OTH REF: 003

Card 2/2 BK

MIKHIN, G.A.; VEKSLER, M.A.; BOYARINOV, A.I. Primali uchastiye: TAMONKIN,I.V.; TEREKHIN, E.M.

Laboratory high-frequency automatic titrator. Zav.lab. 29 no.8. 1008-1009 '63.   (MIRA 16:9)
       (Conductometric analysis)

TAMONOV, A.A.

Flow of a nonlinearly viscoplastic medium between two plates. Issl.
po uprug. i plast. no.2:203-211 '63.   (MIRA 16:8)
        (Bearings (Machinery)—Lubrication) (Plasticity)

TAMONOV, F., kand.voyennykh nauk

The nature and objectives of the Soviet Armed Forces. Komm.
Vooruzh.Sil 2 no.12:13-20 Je '62.   (MIRA 15:8)
. (Russia—Armed forces)

TAMONT'YEV, V.P.

Methodology of determining CO_2 in the air using a TG-5 titrimeter and a volumetric microanalytic apparatus. Trudy Inst. okean. 54: 126-134 '62.   (MIRA 16:6)
(Titrimeters) (Air—Analysis) (Carbon dioxide)

TAMONT'YEV, V.P.; BRUYEVICH, S.V.

Strontium in the waters of the Pacific and Indian Oceans and the
Black Sea. Trudy Inst. okean. 67:41-55 '64.

(MIRA 17:12)

TAMOSHAYTIS, I., inzh.

More than one million rubles has been saved. Stroitel' no.1:26 Ja
'61.   (MIRA 14:2)
(Vilnius—Gypsum)

TAMOSHAYTIS, P. T.

"The Question fo the Clinical Aspects of Infectious Nonspecific Arthrites and Their Treatment with Sulfur." **Vilnius** State U imeni V. Kapsukasa, Vilnius, 1955 (Dissertation for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya Letopis', No. 32, 6 Aug 55

TAMOSHAYTIS, Yu.S. [Tamosaitis, J.]

Negative relief of the bogs of interdune troughs in the Lithuanian
S.S.R. Trudy AN Lit. SSR. Ser.B no.1:69-76 '65.   (MIRA 18:7)

1. Institut geologii i geografii AN Litovskoy SSR.

TAMOSHAYTIS, Yu.S. [Tamosaitis, J.]

Genetic classification of bog beds in the Lithuanian S.S.R.
Trudy AN Lit. SSR. Ser. B no.3:137-147 '64.

(MIRA 18:5)

1. Institut geologii i geografii AN Litovskoy SSR.

TAMOSIUNAS, J.; VAZNELIS, J., red.; BANCEVICIUS, G., tekhn. red.

[Achievements and future development of agriculture in the Lithuanian S.S.R.] Lietuvos TSR zemes ukio laimejimai ir perspektyvos. Vilnius, Valstybine politines ir mokslines literaturos leidykla, 1963. 47 p.   (MIRA 16:6)
             (Lithuania--Agriculture)

TAMOSHYUNAS, L.M. [Tamosiunas, L.]

Texture of Upper Permian anrydrites in the southern part of
the Baltic region. Trudy AN Lit. SSR. Ser. B no.2:131-151 '64.
(MIRA 18:3)

1. Institut geologii i geografii AN Litovskoy SSR.

TAMOSHYUNAS, L.M. [Tamosiunas, L.]

Chemical composition of the Upper Permian sulfate formation
in the Lithuanian SSR and the problem of its practical
utilization. Trudy AN Lit.SSR. Ser. B. no.2:219-231 '65.
(MIRA 19:2)

1. Institut geologii i geografii AN Litovskoy SSR. Submitted
September 15, 1964.

SOV/112-58-1-551

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1958, Nr 1, p 81 (USSR)

AUTHOR: Bela-Belov, A. M., and Tamoyan, G. S.

TITLE: Explosion-Proof Start-and-Control Equipment for Automatic Control of Shaft Winches and Small Hoisting Machines (Vzryvobezopasnaya puskoreguli-ruyushchaya apparatura dlya avtomatizirovannogo upravleniya shakhtnymi lebedkami i malymi pod"yemnymi mashinami)

PERIODICAL: V sb.: Raboty M-va elektrotekhn. prom-sti SSSR po mekhaniz. i avtomatiz. nar. kh-va, Moscow, 1956, pp 81-83

ABSTRACT: Assemblies developed at the plant imeni Karl Marx are described for remote and automatic control of shaft winches and small hoisting machines. A distinguishing feature of the above assemblies is use of dynamic braking of the winch motor to insure stable reduced speed for lowering cargo and men. The purpose, operating principle, and electrical circuits of individual control units included in the above assemblies are described. A simplified control circuit diagram of shaft-type winch motor made up of standard units is

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SOV/112-58-1-551

Explosion-Proof Start-and-Control Equipment for Automatic Control of Shaft . . . .

presented. The system is intended for starting, speed regulation, braking, and stopping a wound-rotor induction motor up to 160 kw capacity, and also provides protection and interlocks necessary for normal faultless operation of an automatic outfit.

A.V.S.

AVAILABLE: Library of Congress

1. Hoists--Control systems   2. Control systems--Design
3. Control systems--Operation

Card 2/2

TAMOYAN, G. S.

RIMAN, Ya.S., inzhener; TAMOYAN, G.S., inzhener.

New explosion-proof equipment for controlling mine winches. Vest. elektroprom. 28 no.3:74-77 Mr '57.   (MIRA 10:4)

1. Zavod imeni Karla Marksa Ministerstva elektropromyshlennosti. (Electric relays)   (Mine hoisting)

BELA-BELOV, A.M., inzh.; TAMOYAN, G.S., inzh.

Explosionproof magnetic control stations. Ugol' Ukr. 2 no.2:38-40
F '58. (MIRA 13:3)

1. Zavod im. Karla Marksa.
(Coal mining machinery—Electric driving)
(Automatic control)

ACCESSION NR: AP4044508   S/0281/64/000/004/0466/0473

AUTHOR: Ivanov-Smolenskiy, A. V.; Tamoyan, G. S.

TITLE: A basis for designing shielded asynchronous electric motors having a con-
ducting fluid in the gap

SOURCE: AN SSSR. Izv. Energetika i transport, no. 4, 1964, 466-473

TOPIC TAGS: electric motor design, electric motor, shielded electric motor, asyn-
chronous electric motor, gap fluid

ABSTRACT: Hermetically sealed asynchronous motors with conducting fluids in the
gap are used for pumping liquid metals, electrolytes, etc. In this paper, such a
motor is described and the layer of conducting fluid is treated as a finite number
of hollow rotors with slip varying between 1 and s_p, the magnetic field developed
being a combination of the fields due to stator, rotor and all the hollow rotors.
Magnetohydronamic forces are not amenable to the usual methods of calculating elec-
tric motors but are described by the Maxwell equations for a moving medium, the
Navier-Stokes equation and the equation of continuity, the system in general not
being integrable. In the Kàfedra elektricheskikh mashin MEI (Electric Motor De-
partment, MEI) models were set up for studying the behavior of liquid sodium (at
150-200C) having Reynolds numbers of 10^3-10^5, and Hartmann numbers of 0-100, in

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ACCESSION NR: AP4044508

full and partially full gaps. The results for laminar flow and a rotating field showed that the characteristics depended on the Hartmann number and that the loss in the layer was approximately equal to the power absorbed from the stator field, in the synchronous unloaded condition. Using the method of dimensions and the principle of dynamic similarity, a universal relationship was obtained between loss in the conducting fluid and the Hartmann number. With reasonable assumptions as to flux leakage etc., a vector diagram, equivalent circuit and power-dissipation diagram were constructed and a system of equations derived. The solution of these equations yielded all the design parameters, such as flux in the gap, differential dissipation, friction due to liquid, resistance of shielding, etc. Twelve additional sources of power loss were listed and stated to contribute only 0.45% in a loaded operation. Orig. art. has: 6 figures and 18 formulas.

ASSOCIATION: none

SUBMITTED: 19Sep63   ENCL: 00

SUB CODE: EE   NO REF SOV: 007   OTHER: 000

Card   2/2

ACCESSION NR: AP4042739   S/0143/64/000/006/0032/0039

AUTHOR: Ivanov-Smolenskiy, A. V. (Docent); Tamoyan, G. S. (Engineer)

TITLE: Similitude criterion of magnetohydrodynamic phenomena and electromagnetic-power losses in a layer of conducting liquid between the rotor and stator in an induction motor

SOURCE: IVUZ. Energetika, no. 6, 1964, 32-39

TOPIC TAGS: pump, sealed pump, liquid metal pumping, conducting liquid pumping, sealed pump motor

ABSTRACT: This problem is confronted in simulating the driving motor of a completely sealed turbine-type pump handling a liquid metal or other conducting liquid. By adapting the classical Navier-Stokes fluid-motion equations to the specific conditions of the sealed-pump motor, these similitude criteria are developed:

$$\begin{cases} s_p = \text{idem}, \\ \Delta B \sqrt{\dfrac{\sigma}{\rho\nu}} = \text{idem. (Hartmann's criterion, } M), \end{cases}$$

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ACCESSION NR: AP4042739

where s_ρ is the slip of the rotor boundary in the magnetic field, Δ is the gap thickness, B is the magnetic induction, σ is the electric conductivity, ρ is the liquid density, and ν is the kinematic viscosity. Scale factors for determining power losses in the motor are calculated. The above criteria were experimentally corroborated on a universal induction-motor model with a liquid metal in its airgap; tests were conducted in a wide range of M. Theoretical and experimental unit-electromagnetic-power-vs.-M curves are presented. Orig. art. has: 3 figures and 31 formulas.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power-Engineering Institute)

SUBMITTED: 12Dec63   ENCL: 00

SUB CODE: EE   NO REF SOV: 008   OTHER: 000

Card 2/2

IVANOV-SMOLENSKIY, A.V. (Moskva); TAMOYAN, G.S. (Moskva)

Basis for the design of a shielded asynchronous electric motor with conductive liquid in the air gap. Izv. AN SSSR. Energ. i transp. no.4:466-473 Jl-Ag '64.   (MIRA 17:10)

L 1068-66   EWT(d)/EWT(l)/EPA(s)-2/EWT(m)/EWP(w)/EPF(n)-2/EWP(v)/T-2/EWP(t)/EWP(k)/
EWP(b)/EWA(h)/ETC(m)   JD/WW/JG/EM
ACCESSION NR: AR5006808   S/0196/65/000/001/1014/1014
                                           621.313.333.2.001.24

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 1I65

AUTHOR: Ivanov-Smolenskiy, A. V.; Tamoyan, G. S.

TITLE: Design of the induction shielded motor with a conducting liquid in its gap

CITED SOURCE: Tr. Mosk. energ. in-ta, vyp. 56, 1964, 207-220

TOPIC TAGS: induction motor, conducting liquid pump, sealed pump motor

TRANSLATION: A method of design of the shielded induction motor having a conducting
liquid between its stator and rotor is substantiated. Such motors are used in the
sealed pumps for liquid metals, electrolytes, or other conducting liquids. Such a
motor can be regarded as a squirrel-cage type holding in its gap several hollow
rotors with different velocities. The stator shield is stationary and has a slip
$s = 1$. The rotor shield is stationary with respect to the rotor and has a slip
$s = s_p$. The conducting-liquid layer in the gap can be regarded as an infinite
number of hollow rotors whose slips continuously vary from $s = 1$ (at the stator) to
$s = s_p$ (at the rotor). In such a motor, the mutual-induction field is formed as

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L 1068-66
ACCESSION NR: AR5006808

a result of a joint action of the stator-current magnetizing force and those of all "rotors". Fundamental equations, an equivalent circuit, and a vector diagram are presented. A method for calculating the parameters, losses, and characteristics is given. Six illustrations. Bibliography: 8 titles.

SUB CODE: EE

ENCL: 00

Card 2/2

L 54628-65   EWT(1)/EPA(s)-2/EWT(m)/EPF(n)-2/EWP(t)/EWP(b)   Pt-7/Pu-4
IJP(c)   JD/WW/JG
ACCESSION NR: AP5006239   S/0292/65/000/002/0005/0009

AUTHOR: Ivanov-Smolenskiy, A. V. (Candidate of technical sciences);
Tamoyan, G. S. (Engineer)

TITLE: Experimental investigation of the phenomena transpiring in a layer of
conducting liquid in an induction-motor gap

SOURCE: Elektrotekhnika, no. 2, 1965, 5-9

TOPIC TAGS: sealed rotor pump, liquid metal pump, induction motor, pump
motor

ABSTRACT: An experimental outfit intended for simulating the operation of a
sealed-rotor liquid-metal-pump induction motor is described. The presence of
the liquid metal in the stator-rotor gap greatly complicates determining the motor
characteristics because the phenomena in that metal-filled gap obey the laws of
magnetohydrodynamics, hardly describable by mathematical means. Hence, an
experimental machine was developed which permitted a maximum liquid-sodium
temperature in the gap of 200C, a working temperature of 150C, and a Reynolds
number of 7000 or much higher; power-supply frequency, 20—200 cps; slip

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ACCESSION NR: AP5006239

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range, 1—0; motor speed, 500—3000 rpm; gap, 0.4—1.4 mm; flux density, 1000—7000 gauss. Four replaceable stators with different active lengths, diameters, and pole numbers were used; two of the stators had a four-speed winding, one — two-speed, and one — single-speed. Twelve rotors permitted setting any of three gaps, 0.4, 0.9, or 1.4 mm. The effect of the mutual-induction emf of the machine upon the power consumed by the liquid-sodium-gap layer was determined under synchronous no-load conditions. The emic power received by the layer was approximately proportional to the effective value of the gap flux density. It was also found that the emic-power loss in the gap depends only slightly on the working slip and on the gap thickness. Orig. art. has: 8 figures and 8 formulas.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power-Engineering Institute)

SUBMITTED: 00   ENCL: 00   SUB CODE: IE

NO REF SOV: 000   OTHER: 000

Card 2/2

L 6937-66   EWT(1)/EPA(s)-2/EWT(m)/EPF(c)/FCS(f)   DJ

ACCESSION NR: AP5006239 ·   S/0292/65/000/002/0005/0009

AUTHOR: Ivanov-Smolenskiy, A. V. (Candidate of technical sciences);
Tamoyan, G. S. (Engineer)

TITLE: Experimental investigation of the phenomena transpiring in a layer of
conducting liquid in an induction-motor gap

SOURCE: Elektrotekhnika, no. 2, 1965, 5-9

TOPIC TAGS: sealed rotor pump, liquid metal pump, induction motor, pump
motor

ABSTRACT: An experimental outfit intended for simulating the operation of a
sealed-rotor liquid-metal-pump induction motor is described. The presence of
the liquid metal in the stator-rotor gap greatly complicates determining the motor
characteristics because the phenomena in that metal-filled gap obey the laws of
magnetohydrodynamics, hardly describable by mathematical means. Hence, an
experimental machine was developed which permitted a maximum liquid-sodium
temperature in the gap of 200C, a working temperature of 150C, and a Reynolds
number of 7000 or much higher; power-supply frequency, 20-200 cps; slip

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L 6937-66

ACCESSION NR: AP5006239

3.

range, 1—0; motor speed, 500—3000 rpm; gap, 0.4÷1.4 mm; flux density, 1000—7000 gauss. Four replaceable stators with different active lengths, diameters, and pole numbers were used; two of the stators had a four-speed winding, one — two-speed, and one — single-speed. Twelve rotors permitted setting any of three gaps, 0.4, 0.9, or 1.4 mm. The effect of the mutual-induction emf of the machine upon the power consumed by the liquid-sodium-gap layer was determined under synchronous no-load conditions. The emic power received by the layer was approximately proportional to the effective value of the gap flux density. It was also found that the emic-power loss in the gap depends only slightly on the working slip and on the gap thickness. Orig. art. has: 8 figures and 8 formulas.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power-Engineering Institute) НЧ 55

SUBMITTED: 00   ENCL: 00   SUB CODE: JE

NO REF SOV: 000   OTHER: 000

Card 2/2

ACC NR: AP7003343   SOURCE CODE: UR/0281/66/000/006/0071/0079

AUTHOR: Ivanov-Smolenskiy, A. V. (Moscow); Tamoyan, G. S. (Moscow)

ORG: none

TITLE: Turbulent flow of a conducting fluid in an annular duct under a circular rotating magnetic field

TOPIC TAGS: turbulent flow, conducting fluid, magnetic field, rotating magnetic field, liquid metal, magnetohydrodynamics, electromagnetic pump, nuclear reactor

ABSTRACT: Equations were derived earlier by one of the authors (see: G. S. Tamoyan. Magnetohydrodynamic phenomena in the layer of a conducting fluid between the rotor and stator of an asynchronous electric motor. Izv. AN SSSR, Energetika i Transport, 1964, No. 3) which describe the laminar flow of a conducting fluid in an annular duct with a moving boundary (in the space between the asynchronous electric motor and the rotating rotor) in a circular magnetic field. In the present article, the authors present a quantitative analysis of turbulent flow in such a duct. Similitude criteria are obtained for the loss of

Card 1/2   UDC: 532.517.4:621.3.013.33

ACC NR: AP7003343

electromagnetic power within the conducting fluid layer. Data obtained
experimentally are cited to substantiate these criteria. Orig. art. has:
2 figures and 13 equations.   [Translation of authors' abstract]   [SP]

SUB CODE: 20, 21/SUBM DATE: 29Sep65/ORIG REF: 011/OTH REF: 002/

Card 2/2

RYZHOV, Yu.A.; TAMOYKIN, V.V.; TATARSKIY, V.I.

Space dispersion of inhomogeneous media. Zhur. eksp. i teor.
fiz. 48 no.2:656-665 F '65.   (MIRA 18:11)

1. Radiofizicheskiy institut Gor'kovskogo gosudarstvennogo univer-
siteta i Institut fiziki atmosfery AN SSSR.

L 10007-63   EWG(k)/BDS/EWT(1)/EEC(b)-2/ES(w)-2--AFFTC/AFWL/ASD/ESD-3/
SSD--Pz-4/Pab-4/Pi-4/Po-4--IJP(C)/AT
ACCESSION NR: AP3000150   S/0141/63/006/002/0257/0266
                                                            82
                                                            81
AUTHOR: Tamoykin, V. V.

TITLE: Radiation of a charge in the inhomogeneous medium with a spatial
dispersion

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v. 6, no. 2, 1963,
257-266

TOPIC TAGS: radiation of charge, plasma waves

ABSTRACT: Previous Soviet articles neglected spatial dispersion in treating the
radiation problems. This article provides a theory for finding the intensity
and angular distribution of fluctuating radiation of electromagnetic and plasma
waves, when the charge uniformly moves in a statistically inhomogeneous plasma
with a weak spatial dispersion. Based on the equations for a dispersed field,
formulae are developed for the average intensity of the fluctuating radiation of
transverse (electromagnetic) waves and longitudinal (plasma) waves below and
above the threshold of the Cherenkov radiation of the latter. "The author is
thankful to V. L. Ginzburg, N. G. Denisov, and V. V. Zheleznyakov for discussions
and advices. "Orig. art. has: 41
Card 1/P1   Scientific research Radio-PhysicsI nst. Gorkiy

GORODINSKIY, G.V.; TAMOYKIN, V.V.

Resonance radiation from a charge moving near a plasma clot.
Izv. vys. ucheb. zav.; radiofiz. 6 no.4:721+728 '63. (MIRA 16:12)

1. Nauchno-issledovatel'skiy radiofizicheskiy institut pri
Gor'kovskom universitete.

L 10231-63   EPR/EWT(1)/BDS--AFFTC/ASD--Ps-4--WW

ACCESSION NR: AP3000047   S/0056/63/044/005/1544/1551

61

58

AUTHOR: Tamoykin, V. V.; Biragov, S. B.

TITLE: Radiation reaction of sound due to the motion of small bodies in inhomogeneous gaseous media

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 44, no. 5, 1963, 1544-1551

TOPIC TAGS: Radiation reaction of sound, inhomogeneous gas media

ABSTRACT: Radiation of sound due to the motion of a solid in a statistically inhomogeneous gaseous medium is analyzed by using the analogy with Cerenkov radiation. An expression is found, by the method of the radiation reaction of sound, for the intensity of sound waves radiated under conditions where the dimension of the body is much smaller than its mean free path, and much smaller than the wavelength. It is shown that, in contrast with homogeneous media, sound can be radiated in inhomogeneous media at subsonic velocities of the bodies. It is noted that the radiation of a charge can be considered by a similar method, for example in an inhomogeneous magnetoactive plasma and in

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L 10231-63

3

ACCESSION NR: AP3000047

an inhomogeneous medium with spatial dispersion. "The authors express their gratitude to Professor V. L. Ginzburg and N. G. Denisov for valuable discussion of the results of the research." Orig. art. has: 37 formulas.

ASSOCIATION: Radifizicheskiy institut Gor'kovskogo gosudarstvennogo universiteta (Radiophysics Institute, Gor'kiy State University)

SUBMITTED: 26Oct62   DATE ACQ: 12Jun63   ENCL: 00

SUB CODE: PH   NR REF SOV: 014   OTHER: 002

Card 2/2

L 6710-65   EWT(1)   AFMD(t)/RAEM(a)/RAEM(c)/ASD(a)-5/AFETR/ESD(gs)/ESD(t)/
ACCESSION NR: AP4044097 RAEM(t)   S/0141/64/007/003/0432/0441

AUTHOR: Tamoykin, V. V.

TITLE: On the reaction of radiation when a <u>charge moves in a peri-</u>
<u>odically inhomogeneous medium</u>

SOURCE: IVUZ. Radiofizika, v. 7, no. 3, 1964, 432-441

TOPIC TAGS: electromagnetic radiation, parametric resonance,
Maxwell equation, inhomogeneous medium

ABSTRACT: The radiation of electromagnetic waves when a charged
particle moves in a medium with periodically varying properties is
considered, with account taken of the parametric resonance between
the oscillator vibrations and the transition-radiation field pro-
duced as the charge moves in the medium. The parametric-resonance
effect was disregarded in earlier investigations of an oscillator
moving in an inhomogeneous medium. It is assumed that the charge

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L 6710-65
ACCESSION NR: AP4044097

executes both translational motion and vibration. Maxwell's equa-
tions are used and all the quantities are expanded in Fourier inte-
grals. The case when the properties of the medium vary little over
a distance on the order of the wavelength is considered first, fol-
lowed by analysis of the case when the oscillator covers during the
time of one oscillation a distance equal to the period of the inho-
mogeneity of the system. It is shown that in the latter case the
radiation produced during the motion of the oscillator can give rise
in some cases to a buildup of oscillations at frequencies below the
natural frequency of the oscillator. Other cases considered an os-
cillator vibrating perpendicular to the translational velocity, and
the case of a wavelength much larger than the dimension of the in-
homogeneity. It is shown that even in a weakly inhomogeneous medium
it is necessary to take into account in some cases the resonance be-
tween the oscillator vibration and the transition radiation field,
since this effect can lead to a buildup of the oscillations of the
oscillator. Expressions are obtained for the energy of the radiated

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L 6710-65
ACCESSION NR: AP4044097

electromagnetic waves for a medium with both large-scale and small-scale inhomogeneities. The results can be useful for the stability of subluminal and superluminal beams moving in inhomogeneous media. "The author takes the opportunity to thank V. L. Ginzburg, N. G. Denisov, and V. Ya. Eydman for valuable discussions of the results." Orig. art. has: 43 formulas.

ASSOCIATION: Nauchno issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute at the Gor'kiy University)

SUBMITTED: 02Jul63   ENCL: 00

                          NR REF SOV: 015   OTHER: 000
SUB CODE: EM, NP

Card 3/3

L 15215-65   EWT(1)/EWG(k)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2
Pz-6/Po-4/Pab-10/P1-4   SSD(b)/AEDC(a)/ASD(a)-5/AEDC(b)/AS(mp)-2/AFMD(t)/AFELR'
RAEM(a)/ESD(dp)/ESD(gs)/ESD(t)/IJP(c)   AT

ACCESSION NR: AP4048254   S/0141/64/007/004/0605/0610

AUTHORS: Ry*zhov, Yu. A.; Tamoykin, V. V.

TITLE: On the effective dielectric tensor of an inhomogeneous magnetoactive plasma

SOURCE: IVUZ. Radiofizika, v. 7, no. 4, 1964, 605-610

TOPIC TAGS: magnetoactive plasma, dielectric constant, inhomogeneous plasma, plasma electron concentration, plasma wave propagation, electromagnetic wave scattering

ABSTRACT: An expression is derived for the effective dielectric tensor of a weakly inhomogeneous magnetoactive plasma with specified inhomogeneities of the electron concentration. A uniform random field of the electron density fluctuation is assumed, and an equation for this average field is obtained by averaging the differential equation for the electric field over the ensemble of electron-

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L 15215-65
ACCESSION NR: AP4048254

3

density inhomogeneities. The effective dielectric constant is de-
termined by the method of F. V. Bunkin (ZhETF v. 32, 338, 1957),
for the particular case when the dimensions of the inhomogeneities
are small compared with the wavelength of the propagating radiation.
It is shown that in the case of weak gyrotropy, the anisotropy of
the plasma has practically no influence on the scattering; this
agrees with the deductions of N. G. Denisov (Izv. vyssh. uch. zav. --
Radiofizika v. 3, 393, 1960). "The authors thank B. N. Gershman
and N. G. Denisov for a discussion of the results." Orig. art. has:
18 formulas.

ASSOCIATION: Nauchno issledovatel'skiy radiofizicheskiy institut
pri Gor'kovskom universitete (Scientific Research Radiophysics
Institute at the Gor'kiy University)

SUBMITTED: 29Jan64

SUB CODE: EM   NR REF SOV: 009   ENCL: 00
                                                        OTHER: 000
Card 2/2

L 18193-65   L T/1 'ETA/w\- ½/2E°(t'/(.A(m)-' Pz-b/Fi-4   IJF(c)   AT
                                                    S/0141/64/007/006/1057/1063

ACCESSION NR: AP5006018

AUTHOR: Tamoykin, V. V.

TITLE: Radiation from a charge moving in a medium with fluctuating parameters

SOURCE: IVUZ. Radiofizika, v. 7, no. 6, 1964, 1057-1063

TOPIC TAGS: radiating particle, radiating charge, spectral density, pressure
fluctuation, entropy fluctuation, electron density fluctuation

ABSTRACT: Results obtained earlier by the author (Izv. vyssh. uch. zav. - Radio-
fizika v. 6, 257, 1963) and by others are extended to the case when the medium is
inhomogeneous not only in space but also in time. By way of a concrete example,
an analysis is made of the radiation emitted by a charged particle moving in a gas
with thermodynamic fluctuations of the pressure and entropy, and also in a plasma
with thermal fluctuations of the electron density. Account is taken of the fact
that the time scales of the pressure and entropy fluctuations are different. Lim-
iting cases when the time variation of the parameters of the medium has no effect
or maximum effect on the energy radiated by the particle are discussed. It is

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ACCESSION NR: AP5006018

shown that in some cases the spectral density of the electromagnetic radiation may
be lower than the energy radiated when the charge moves in a randomly inhomogeneous
medium with time-invariant parameters. "The author thanks V. L. Ginzburg for sug-
gesting the topic and N. G. Denisov for interest in the work." Orig. art. has:
32 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom
universitete (Scientific-Research Radiophysics Institute at the Gor'kiy University)

SUBMITTED: 19Nov63   ENCL: 00   SUB CODE: EM

NR REF SOV: 006   OTHER: 000

me
Card 2/2

ABSTRACT: The article deals with the variation of the ordinary and extraordinary waves when a charge moves along a magnetic field applied to a magnetoactive plasma with random electron-density fluctuations. The density fluctuations are assumed weak, and the fluctuations of the magnetic field or the thermal motion of the plasma electrons are disregarded. The calculation was made by determining the radiation reaction and using the effective dielectric tensor of an inhomogeneous plasma, defined as the ratio of the displacement to the electric field intensity. It is shown that both types of normal waves are produced in the inhomogeneous magnetic plasma at frequencies exceeding the natural plasma frequency, where Cerenkov excitation of the electromagnetic waves is impossible. It is also noted that on

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L 53013-65

3

ACCESSION NR: AP5010675

approaching the Cerenkov threshold of the extraordinary wave emission at a given frequency, the intensity of the transition radiation of the charge increases logarithmically, but only to a definite limit determined by the absorption of the electromagnetic wave due to collisions. It is noted in the conclusion that transition radiation of intensity larger than obtained in the present work can occur in a plasma near gyroresistance, and also in the general case at a frequency satisfying the plasma resonance, when the polarization oscillations excited by the moving charge are scattered by concentration inhomogeneities. "The author is deeply grateful to V. L. Ginzburg and N. G. Denisov for a valuable discussion." Orig. art. has: 30 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Radiophysics Scientific Research Institute at the Gor'kiy University)

| SUBMITTED: 20Apr64 | ENCL: 00 | SUB CODE: ME, EM |
| NR REF SOV: 013 | OTHER: 000 | |

Card 2/2

L 42150-65   EPF(n)-2/EPA(w)-2/EWT(1)/EWG(m)   Pi-4/Po-4/Pz-6/Pab-10   IJP(c)   AT/
ACCESSION NR: AP5006515   WW   8/0056/65/048/002/0656/0665

AUTHOR: Ryzhov, Yu. A.; Tamoykin, V. V.; Tatarskiy, V. I.

TITLE: Spatial dispersion of inhomogeneous media

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 2, 1965,
656-665

TOPIC TAGS: spatial dispersion, inhomogeneous medium, dielectric constant, inhomo-
geneous plasma, plasma oscillation

ABSTRACT: A spatial-dispersion mechanism connected with random inhomogeneities of
a medium is investigated. An expression is obtained for the effective dielectric
tensor of a medium in which the dielectric constant is subject to strong fluctua-
tions. In the case of weak fluctuations of the dielectric constant, this expression
generalized the results obtained earlier by E. A. Kaner (Izv. vyssh. uch. zav.,
Radiofizika, v. 2, 827, 1959) without account of spatial dispersion. The calcula-
tion of the dielectric tensor for the case of strong fluctuations is based on ear-
lier results of V. M. Finkel'berg (ZhTF v. 34, 509, 1964) and one of the authors
(Tatarskiy, and Gertsenshteyn, ZhETF v. 44, 676, 1963; Tatarskiy, ZhETF v. 46,

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L 42150-65
ACCESSION NR: AP5006515

1397, 1964 with some of the results of the latter corrected in the present paper).
It is shown that spatial dispersion of the dielectric tensor does not give rise to
longitudinal waves of the average field. The case of an inhomogeneous plasma is
considered in detail by way of an example. An expression is derived for the tensor
at frequencies close to plasma resonance, when the plasma acts like a medium with
strong dielectric-constant fluctuations. The case of weak fluctuations (far from
resonance) is also considered. "We thank M. A. Miller, A. V. Gaponov, and V. L.
Ginzburg for discussions and valuable comments." Orig. art. has: 46 formulas.

ASSOCIATION: Radiofizicheskiy institut Gor'kovskogo gosudarstvennogo universiteta
(Radiophysics Institute,   Gor'kiy State University); Institut fiziki atmosfery
Akademii nauk SSSR (Institute of Atmospheric Physics, Academy of Sciences SSSR)

SUBMITTED: 11Aug64   ENCL: 00   SUB CODE: ME, EM

NR REF SOV: 007   OTHER: 000

Card 2/2 CC

ACC NR₁ AP7001214   SOURCE CODE: UR/0141/66/009/006/1124/1133

AUTHOR: Tamoykin, V. V.

ORG: Scientific Research Institute of Radiophysics, Gorkiy University (Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete)

TITLE: Effect of some statistical factors on the scattering characteristics of a cylinder of finite length

SOURCE: IVUZ. Radiofizika, v. 9, no. 6, 1966, 1124-1133

TOPIC TAGS: electromagnetic wave scattering, wave scattering, dielectric constant, optics, scattering cross section, cylinder

ABSTRACT: An attempt has been made to investigate electromagnetic wave scattering by a smooth cylinder of finite length in a layer with random nonuniformity of the dielectric constant. Calculations were carried out to approximate the physical optics. It is shown that at sufficiently large fluctuation phase runs in the layer, the scattering cross section and the scattered radiation diagram vary significantly as compared to the case when there are no chaotic inhomogeneities in the medium. Wave scattering by a rough cylinder of finite length in a

Card 1/2   UDC: 538.56:519.25

ACC NR: AP7001214

normal medium appeared to be analogous to wave scattering by a cylinder in a chaotically inhomogeneous medium. The author thanks M. A. Miller and N. G. Denisov for discussions. Orig. art. has: 1 figure and 39 formulas. [Based on author's abstract] [NT]

SUB CODE: 20/SUBM DATE: 06Mar66/ORIG REF: 007/OTH REF: 004/

Card 2/2

AUTHOR: Tamoykin, Yu.S.   SOV/132-58-12-10/14

TITLE: **Drilling Pipe Extractor for Liquidation of**
              Breakdowns (Shlips dlya lovli buril'nykh trub pri likvida-
              tsii avariy)
                                        д.24

PERIODICAL: Razvedka i okhrana nedr, 1958, Nr 12, pp 49 (USSR)

ABSTRACT: A device for extracting drilling pipes severed from the main
              pipecolumn inside the bore hole was constructed by S.G. Bune-
              gin, a member of the Kama Geological Prospecting Team. Based
              on the same principle as the holding grab, it is of much
              simpler construction and holds obliquely-cut pipes.
              There is 1 diagram.

ASSOCIATION: Volzhskaya kompleksnaya geologorazvedochnaya ekspeditsiya
              (The Volga Joint Geological Prospecting Expedition)

Card 1/1

TAMOYKIN, Yu.

    Bell socket with exchangeable dies. Biul.nauch.-tekh.inform.VIMS
no.1:81 '60.   (MIRA 15:5)

    1. Sredno-Volzhskoye geologicheskoye upravleniye.
                (Boring machinery)

F   1473.   DETERMINATION OF DIFFERENT SULPHUR-FORMS IN SOLID FUELS.
Barton, K. and Tampa, J. (Paliva a Voda, 20 Nov. 1947, vol. 27,
261-266). Experimental determinations of sulphur in solid fuels
have been carried out. The results of usual methods of determination
of sulphur (Eschka for the total sulphur and Yancey-Powell-Parr
for sulphates and pyrites) were compared with these. The Eschka
method for the determination of total sulphur is yielding low
results. Therefore combustion in a stream of oxygen was carried
out (absorption of SO_2 in hydrogen peroxide) with subsequent
determination of the sulphur left in the ash after combustion.
Combustion was effected in the Grote-Krekeler apparatus. The
Yancey-Powell-Parr method for the determination of sulphates and
pyrites has been found quite unreliable for Czechoslovakian
brown coals and for most black coals. A low content of sulphates
will be shown by this method, due to incomplete extraction of
the sulphates. Determination of pyritic sulphur (direct, or
indirect by calculation of the content of pyrites) is in most
cases unreliable. A method for the correct determination of
sulphates and of pyrites is suggested, based upon successive

extraction of the coal with hydrochloric acid and nitric acid of higher concentration with subsequent determination of the sulphur left in the ash of the extracted coal. For the volumetric determination of the pyrites a solution of titanium trichloride instead of the usual potassium permanganate was used, in order to eliminate the influence of the yellow-coloured organic humous substances contained in the solution. The correctness and reliability of the the suggested method was checked. Apparatus for the determination of sulphides in solid fuels is described. Sulphides have not been found in any of the analysed coal-samples, whereas this determination seems to be necessary for semi-coke and coke.

(L).

1720. DETERMINATION OF ARSENIC IN SOME SORTS OF CZECHOSOLOVAKIAN COAL. Berton, K. and Tampa, J. (Paliva a Voda, July-Sept. 1948, vol. 28, 234-235).

The determination was carried out on several samples of Czechoslovak coal according to the method of T.E. Thorpe with application of Boy's modification of the colorimetric Gutzeit-test for determination of small amounts of arsenic. The amount of arsenic found ranged from 0.0010 to 0.0145%. No volatile arsenic was found. (L).

SPERANSKIY, B.A., kand.tekhn.nauk; TAMPLON, F.F., inzh.

Prestressed aluminum structures having large-span roofs with
suspended cranes. Trudy NII prom.zdan.i soor. no.5:90-123 '61.
(MIRA 15:4)

(Aluminum, Structural)   (Roofs)

SUKHANOV, V.P.; TAMPLON, F.F.

Optimal height of aluminum trusses with parallel chords. Trudy
Ural.politekh.inst. no.131:88-95 '63.   (MIRA 16:12)

LABZENKO, V.I., kand. tekhn. nauk; SMIRNYAGIN, Yu.V., inzh.; VOLODARSKIY,
B.Ya., inzh.; FLOROV, R.S., kand. tekhn.nauk; SPERANSKIY, B.A.,
kand. tekhn.nauk; SHAVSHUKOVA, G.N., inzh.; OL'KOV, Ya.I., inzh.;
TAMPLON, F.F., inzh.; SUKHANOV, V.P., inzh.; TIMASHEV, S.A.,
inzh.; BOLOTINA, A.V., red.izd-va; KOROBKOVA, N.I., tekhn. red.

[Progressive metal elements for industrial construction] Progres-
sivnye metallicheskie konstruktsii dlia promyshlennogo stroitel'-
stva. [By]V.I.Labzenko i dr.   Pod red. V.I.Labzenko i R.S.Florova.
Moskva, Gosstroiizdat, 1963.   183 p.   (MIRA 16:4)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut po
stroitel'stvu, Sverdlovsk.
     (Steel, Structural)   (Aluminum alloys)

SPERANSKIY, B.A., kand. tekhn. nauk; KRUPENNIKOV, S.S., kand. tekhn. nauk;
KAPLAN, A.A., inzh.; TAMPLON, E.E., inzh.

Using prestressed metal beams for roofs. Prom. stroi. 41
no.4:37-41 Ap '64.   (MIRA 17:9)

TAMPLON, F.F., inzh.

Manufacturing roof beams of aluminum alloy. Prom. stroi. 47
no.4:41-45 Ap '64.   (MIRA 17:9)

TAMPLON, F.F., inzh.

Determination of stresses in wire cables based on their natural vibrations. Prom. stroi. 42 no.1:34-36 '65.   (MIRA 18:3)

TAMR, V.

The use of shifting casting for the outer concreting of circular steel reservoirs.
p.235.
(Pozemni Stavby, Vol. 5, No. 5, May 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

TAMRAZOV, A.; SERGIYENYA, K. (g.Khar'kov)

Inspection of "red corners" is in progress. Sov. profsoiuzy
18 no.16:38 Ag '62.   (MIRA 15:8)

1. Rektor narodnogo universiteta kul'tury pri krasnom ugolke
Upravleniya Zakavkazskoy zheleznoy dorogi, g. Tbilisi (for
Tamrazov). 2. Neshtatnyy korrespondent zhurnala "Sovetskiye
profsoyuzy" (for Sergiyenya).
                       (Community centers)

AUTHOR: Romanenko, S.V., Candidate of Technical Sciences, Docent
             (Deceased), and Tamrazov, P.M., Engineer

TITLE: Basic Problems of Thermodynamics of Flow Considering Real
             Limit Conditions (Osnovnyye zadachi termodinamiki potoka
             s uchetom real'nykh granichnykh usloviy)

ABSTRACT: The solution of any problem in flow thermodynamics im-
             plies an analysis of variable criteria of the flow, i.e.
             the determination of its behavior when the "total exter-
             nal action" (degree of cross-section narrowing, quantity
             of heat added or subtracted, nondimensional length of
             channel etc.) and the counterpressure are being changed.
             In thermodynamical literature, problems of variable cri-
             teria of flow are often solved for incidental or even
             unreal limit conditions. In the simplest practical prob-
             lems, the work of technical devices in variable condi-
Card 1/3   tions can be sufficiently characterized by a fixed or

Basic Problems of Thermodynamics of Flow Considering Real Limit Conditions

SOV/143-59-1-5/17

regulable value of relative counterpressure or by the quantity of external action. To illustrate this, the authors adduce two problems of great practical importance that deal with isolated unilateral external actions: 1) stream with abstraction or addition of heat to a subsonic or sonic flow in the initial section of a nozzle; 2) stream with friction of subsonic or sonic flow. The solutions show that the so-called thermal and frictional crises, as construed on the basis of artificial limit conditions, do not materialize at the sonic flow speed in limit conditions that are real. In the first case, the addition of heat (expressed by the relative characteristic of heat exchange θ) to subsonic flow does not bring it nearer, but removes it from the thermal crisis; and to sonic flow, weakens or, with certain θ values, eliminates the thermal crisis. In the second case the increase of the nondimensional length of the flow channel has a similar effect on the flow with regard to the frictional crisis. There are 6 diagrams and 7 references, 5

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Basic Problems of Thermodynamics of Flow Considering Real Limit Con- SOV/143-59-1-5/17
ditions

of which are Soviet and 2 American.

ASSOCIATION: Kiyevskiy ordena Lenina politekhnicheskiy institut
(Kiyev, Order of Lenin, Polytechnical Institute)

PRESENTED: By the Kafedra teoreticheskoy i obshchey teplotekhniki
(Chair   of Theoretical and General Thermotechnics)

SUBMITTED: November 24, 1958

Card 3/3

S/123/61/000/004/023/027
A004/A104

AUTHORS: Romanenko, S. V., and Tamrazov, P. M.

TITLE: New methods of gas-dynamic calculations of heat-exchangers

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 4, 1961, 7, abstract
               4131. ("Izv. Kiyevsk. politekhn. in-ta", 1960, vol. 30, 13-30)

TEXT: The authors present some versions of plotting gas-dynamic calculations
of heat exchangers operating on the principle of forward flow or counterflow.
The formulae being recommended are simple enough, do not require auxiliary graph-
ings and are not limited by assumptions on the nature of temperature changes of
the wall or on the temperature pressure between the heat-transfer agents. There
are 5 figures and 6 references.

                                                                 B. Zemel'man

[Abstractor's note: Complete translation]

Card 1/1

S/021/61/000/005/003/012
D215/D304

AUTHOR: Tamrazov, P.M.

TITLE: Conformed mapping of a region on a rectangle with
            rectilinear slits

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidi, no. 5,
            1961, 595 - 598

TEXT: The aim of the paper is to prove that the extremal problem
has the solution (Theorem 1) which is unique (Theorem 2). The fol-
lowing definitions and notations were introduced by the author:
The frontier interval A'A" is the set of frontier elements of the
region B, which lies between any two frontier elements A' and A"
of the region B. Region B is of the shape (A_1A_2, A_3A_4) if the fron-
tier intervals A_1A_2 and A_3A_4 which are frontier intervals of one
frontier component are not frontier intervals for the other fron-
tier components: $\mathfrak{M}(B, A_1, A_2, A_3, A_4)$ is the family of one sheet

Card 1/6

Conformed mapping of a ...

conformal mappings of the region B into a region on the right half-plane, which lies between the lines β_0 : I_m w = o and β_1 : I_m w = = 1, C(B, A_1, A_2, A_3, A_4) is the family of corresponding images of

$$B : \tilde{\Phi}(f) = \sup_{z \in B} [Ref(z)] \qquad (1)$$

is a functional defined in

(B, A_1, A_2, A_3, A_4) : M(B, A_1, A_2, A_3, A_4) $\equiv$ M = inf Φ(f) : f$\in \mathcal{M}$.

Extremal function F is any function F$\in \mathcal{M}$(B, A_1, A_2, A_4) for which Φ(F) = M. Extremal problem P(B, A_1, A_2, A_3, A_4) : To find in $\mathcal{M}$(B, A_1, A_2, A_3, A_4) a transformation $\bar{F}$(B, A_1, A_2, A_3, A_4) and a corresponding region K $\equiv$ K(B, A_1, A_2, ... A_4) where K$\in$C(B, A_1, A_2, A_3, A_4) such that Φ(F) = M $\equiv$ M(B, A_1, A_2, A_3, A_4) where M(B, A_1, A_2,

Card 2/6

Conformed mapping of a ...

A_3, A_4) inf $\Phi(F)$, $f \in \mathfrak{M}(B, A_1, A_2, A_3, A_4)$. Theorem 1. Problem P(B, A_1, A_2, A_3, A_4) has a solution. Extremal region K is bounded by a rectangular contour with vertices 0, M, M + i, 1 corresponding to A_1, A_2, A_3, A_4 and by a set of vertical slits lying inside the rectangle. Theorem 2. Solution of the problem P(B, A_1, A_2, A_3, A_4) is unique. To prove the theorem 1 and 2 the author uses three lemmas, concluding that if all internal components of region B, except the finite number of vertical intervals, are contained in the zone with width $\triangle$, then

$$\text{mes } A_1 A_2 - \bar{m}(B, A_1, A_2, A_3, A_4) \leqslant \triangle. \qquad (9)$$

The proof of Theorem 1 is based on the principle of compactness and on the remark that if the frontier of the region B is not a rectangle with vertices A_1, A_2, A_3, A_4 or any frontier component of region B is not a vertical slit, then there exists in $\mathfrak{M}(B, A_1, A_2,$

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